

Schneider Series Service Manual

ABE7CPA21

1. Description

The Schneider Electric ABE7CPA21 is a connection sub-base designed for use with counter and analog channels. Rated for four channels, the unit features IP20 protection and operates optimally at temperatures from 0°C to 60°C. It offers compatibility with the Modicon Premium TSXAEY420 and TSXASY410 PLCs, making it suitable for various applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type Connection sub-base for counter and analog channels
Product	Line Modicon
Part	Number ABE7CPA21
EAN	3389110836196
Weight	0.19 lbs (0.09 kg)
Number	of Channels 4 channels
Protection	Rating IP20
Ambient	Operating Temperature 0 to 60°C (in a non-condensing environment)
Storage	Temperature -40 to 80°C (in a non-condensing environment)
Electrical	Connection Type Screw-type terminals
Connection	To Programmable Logic Controller SUB-D 25
Tightening	Torque 0.6 Newton-meter
Compliance	Standards DNV, EAC, GL, UL, and CSA-certified
Rated	Insulation Voltage 2,000 volts
Compatibility	Modicon Premium TSXAEY420 and TSXASY410 programmable logic controllers
Electrostatic	Discharge Resistance 4 to 8 kilovolts
Radiated	Fields Resistance 10 volts per meter
Range	of Product
Modicon	ABE7
Product	or Component Type
Connection	sub-base for counter and analogue channels
Number	of Channels
4	
Connections	- terminals
Screw	type terminals, 1 x 0.09...1 x 1.5 mm² AWG 28...A

3. Product Information

The Schneider Electric ABE7CPA21 is a connection sub-base designed for use with counter and analog channels. Rated for four channels, the unit features IP20 protection and operates optimally at temperatures from 0°C to 60°C. It offers compatibility with the Modicon Premium TSXAEY420 and TSXASY410 PLCs, making it suitable for various applications.

Technical specifications for ABE7CPA21

Manufacturer Schneider Electric

Product Type Connection sub-base for counter and analog channels

Product Line Modicon

Part Number ABE7CPA21

EAN 3389110836196

Weight 0.19 lbs (0.09 kg)

Number of Channels 4 channels

Protection Rating IP20

Ambient Operating Temperature 0 to 60°C (in a non-condensing environment)

Storage Temperature -40 to 80°C (in a non-condensing environment)

Electrical Connection Type Screw-type terminals

Connection To Programmable Logic Controller SUB-D 25

Tightening Torque 0.6 Newton-meter

Compliance Standards DNV, EAC, GL, UL, and CSA-certified

Rated Insulation Voltage 2,000 volts

Compatibility Modicon Premium TSXAEY420 and TSXASY410 programmable logic controllers

Electrostatic Discharge Resistance 4 to 8 kilovolts

Radiated Fields Resistance 10 volts per meter

Range of Product

Modicon ABE7

Product or Component Type

Connection sub-base for counter and analogue channels

Number of Channels

4

Connections - terminals

Screw type terminals, 1 x 0.09...1 x 1.5 mm² AWG 28...AWG 16) flexible with cable end

Screw type terminals, 1 x 0.14...1 x 2.5 mm² AWG 26...AWG 12) solid

Screw type terminals, 1 x 0.14...1 x 2.5 mm² AWG 26...AWG 14) flexible without cable end

Screw type terminals, 2 x 0.09...2 x 0.75 mm² AWG 28...AWG 20) flexible with cable end

Screw type terminals, 2 x 0.2...2 x 2.5 mm² AWG 24...AWG 14) solid

Complementary

Function of module

Analogue output current Premium

Analogue output voltage Premium

Product compatibility

Premium TSXAEY420

Premium TSXASY410

Connection to PLC

SUB-D 25

Fixing mode

By clips (35 mm symmetrical DIN rail)

By screws (solid plate with fixing kit)

[Ui] rated insulation voltage

2000 V terminals/mounting rails

Installation category

II IEC 60664-1

Tightening torque

5.3 lbf.in (0.6 N.m) flat Ø 3.5 mm

Net Weight

0.40 lb(US) (0.18 kg)

Environment

Product Certifications

DNV

GL

CSA

UL

EAC

IP degree of protection

IP20 conforming to IEC 60529

Protective treatment

TC

Resistance to incandescent wire

1382 °F (750 °C) 30 s IEC 60695-2-11

Shock resistance

15 gn 11 ms IEC 60068-2-27

Vibration resistance

2 gn (f= 10...150 Hz) conforming to IEC 60068-2-6

Resistance to electrostatic discharge

4 kV contact) level 3 IEC 61000-4-2

8 kV air) level 3 IEC 61000-4-2

Resistance to radiated fields

9.1 V/m (10 V/m) 26000000...1000000000 Hz)IEC 61000-4-3 level 3

Resistance to fast transients

2 kV level 3 IEC 61000-4-4

Ambient air temperature for operation

32...140 °F (0...60 °C) IEC 61131-2

Ambient air temperature for storage

-40...176 °F (-40...80 °C) IEC 61131-2

Pollution degree

2 IEC 60664-1

Ordering and shipping details

Category

US10CP222375

Discount Schedule

0CP2

GTIN

3389110836196

Returnability

Yes

Country of origin

LV

Description

The ABE7CPA21 connection sub-base is manufactured by Schneider Electric and belongs to the Modicon series. This sub-base is structured with four channels, elegantly engineered for analog and counter connections, thereby enhancing modularity in control systems. Designed specifically for use with Modicon Premium programmable logic controllers such as TSXAEY420 and TSXASY410, it provides seamless integration.

The sub-base is encased in an IP20-rated enclosure, ensuring protection against solid objects larger than 12 mm, making it suitable for indoor installations. It performs effectively within an operational temperature span of 0°C to 60°C in non-condensing environments, while it can safely be stored at temperatures ranging from -40°C to 80°C.

Electrical connections are established through screw-type terminals, allowing secure and robust attachments. With a tightening torque requirement of 0.6 Newton-meters for terminal connections, it guarantees a stable electrical interface. The unit's total weight is approximately 0.4 pounds (0.18 kilograms), making it relatively lightweight.

This component complies with numerous industrial standards hence is certified by DNV, EAC, GL, UL, and CSA. Additionally, it has a rated insulation voltage of 2,000 volts, ensuring safe operation under various electrical stresses. Furthermore, it is equipped to resist electrostatic discharge between 4 to 8 kilovolts and withstands radiated fields up to 10 volts per meter. Such features make the ABE7CPA21 a reliable choice for efficient control system integration.